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# **ANALYSIS OF LIQUIDITY OF SELECTED PRIVATE SECTOR INDIAN BANKS**

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#### **ABSTRACT**

The present study is conducted to analyze the liquidity of selected private sector Indian banks namely ICICI Banking Corporation Ltd. (ICICI), Indusind Bank Ltd (Indusind), AXIS Bank Ltd (AXIS) and HDFC Bank Ltd (HDFC) in India by using CAMEL Model ratios for a period of eleven years i.e. from 2000-01 to 2010-11. The study is of analytical nature and therefore is based on the secondary data collected from various Journals, Annual Reports, Performance Highlights of the Private Sector Banks, Reports on Trends and Progress of Banking in India, etc. One-way ANOVA has been used for the analysis of data collected and to arrive at the conclusions. The results reveal that there is no significant difference in the ratio of liquid assets to total assets and liquid assets to demand deposits in selected banks during the period under study. However, the ratio of government securities to total assets and liquid assets to demand deposits shows a significant difference in the liquidity of the selected banks during the same period.

#### **KEYWORDS**

Liquid Assets, Government Securities, Demand Deposits, Total Deposits, Total Assets.

## INTRODUCTION

sound financial system is indispensable for a healthy and vibrant economy. The banking sector constitutes an integral component of the financial services industry. The performance of any economy to a large extent is dependent on the performance of the banking sector. The banking sector's performance is seen as the replica of economic activities of the nation as a healthy banking system acts as the foundation of social, economic and industrial growth of a nation. Banking institutions in our country have been assigned a significant role in financing the process of planned economic growth. During the past six decades since independence, the banking sector has witnessed significant changes and has surely come a long way from the days of nationalization during early 1970s to the advent of liberalization, privatization and globalization, in the post-1991 era. The flurry of reforms witnessed over the last one and half decade has brought about significant changes in the banking arena in the country. Leveraging on their new found tech-savvy and increased thrust on product/service innovation, the banks in the country witnessed a phenomenal growth in the last few years as the economic growth moved up into top gear to be amongst top in the world. The Asian crisis of 1997 and the recent events like the US subprime crisis have once again underlined the significance of a strong and robust financial exector for smooth and efficient allocation of resources. Indian banks, which initially were in a denial mode about the impact of crisis (on them), but soon admitted to vulnerability to global shocks, have shown remarkable resilience, thanks to the Reserve Bank of India's timely and prudent measures which saved the domestic banks from the blushes of the worst financial crisis.

Liquidity is very important for any organization dealing with money. For a bank, liquidity is a crucial aspect which represents its ability to meet its financial obligations. It is of utmost importance for a bank to maintain correct level of liquidity, which will otherwise lead to declined earnings. Banks have to take proper care in hedging liquidity risk, while at the same time ensuring that a good percentage of funds are invested in higher return generating investments, so that banks can generate profit while at the same time provide liquidity to the depositors. Among a bank's assets, cash investments are the most liquid. A high liquidity ratio indicates that the bank is more affluent. Induced by the forgoing revelations, an attempt is made to analyze the asset quality of selected private sector Indian banks.

### LITERATURE REVIEW

In the process of continuous evaluation of the bank's financial performance both in public sector and private sector, the academicians, scholars and administrators have made several studies on the CAMEL model but in different perspectives and in different periods. Lace well and Stephen Kent (2001) conducted a study consisting of multiple stages. Stage one in the estimation of cost and alternative profit efficiency scores using a national model and a size-specific model. Previous research asserts that an efficiency component should be added to the current CAMEL regulatory rating system to account for the ever-increasing diverse components of modern financial institutions. Stage two is the selection and computation of financial ratios deemed to be highly correlated with each component of the CAMEL rating. The research shows that there is definitely a relationship between bank efficiency scores and financial ratios used to proxy a bank's CAMEL rating. Godlewski (2003) has tested the validity of the CAMEL rating typology for bank's default modelisation in emerging markets and focused explicitly on using a logical model applied to a database of defaulted banks in emerging markets. Kapil (2005) examined the relationship between the CAMEL ratings and the bank stock performance. The analysis of the banks was analyzed on the basis of the Offsite Supervisory Exam Model - CAMEL Model. The reflect management was not considered because all public sector banks were government regulated and also because all other four components - C, A, E and L - reflect management quality. The remaining four components were analyzed and rated to judge the composite rating. Sarker (2005) examined the CAMEL model for regulation and supervision of Islamic banks by the central bank in Bangladesh and enabled the regulators and supervisors to get a Shariah benchmark to supervise and inspect Islamic banks and Islamic financial institutions from an Islamic perspective. This effort added a new 'S' to the CAMEL rating system as Shariah rating and CAME

1997, interest rates were liberalized and banks were allowed to fix lending rates. As a sequel to these reforms, new private sector banks were allowed entry in the market. Many of these private sector banks brought with them new technologies and new products. Even then Indians preferred nationalized banks for their services. The failure of Global Trust Bank made Indian depositors to question the sustainability of private sector banks. Gupta (2008) conducted the study with the main objective to assess the performance of Indian private sector banks on the basis of CAMEL Model and gave rating to top five and bottom five banks. They ranked 20 old and 10 new private sector banks on the basis of CAMEL Model. They considered the financial data for the period of five years i.e. from 2003-07. Aspal and Malhotra (2012) aimed to measure the financial performance of Indian public sector banks excluding State Bank Group for the period of 2006-11. The study found that Bank of Baroda was at the first position with overall composite ranking average of 6.05 due to its better performance in the areas of liquidity and asset quality, closely followed by Andhra Bank with overall composite ranking average of 6.15 because of its strength in the spheres of management efficiency, capital adequacy and asset quality. United Bank of India hold the bottom most rank with overall composite ranking average of 14.60 due to management inefficiency, poor assets and earning quality. The study recommends that United Bank of India has to improve its management efficiency, assets and earning quality. Similarly, Bank of Maharashtra should take necessary steps to improve its liquidity position and management efficiency.

#### **SCOPE OF STUDY**

This study covers four private sector banks namely ICICI Banking Corp. Ltd (ICICI), Indusind Bank Ltd (Indusind), AXIS Bank Ltd (AXIS) and HDFC Bank Ltd (HDFC).

#### **OBJECTIVES OF THE STUDY**

The present study aims to analyze the liquidity of selected private sector Indian banks.

### **RESEARCH HYPOTHESES**

To achieve the above objectives of the study, the following hypotheses have been formulated and tested:

- 1. There is no significant difference in the ratio of liquid assets to total assets in the selected private sector Indian banks.
- 2. There is no significant difference in the ratio of government securities to total assets in the selected private sector Indian banks.
- 3. There is no significant difference in the ratio of liquid assets to demand deposits in the selected private sector Indian banks.
- 4. There is no significant difference in the ratio of liquid assets to total deposits in the selected private sector Indian banks.

#### RESEARCH METHODOLOGY

The present study is of analytical nature and therefore is based on the secondary data for the period of eleven years i.e. from 2000-01 to 2010-11 collected mainly from various Journals, Annual Reports, Performance Highlights of the Private Sector Banks, and Reports on Trends and Progress of Banking in India. For the analysis of data collected, one-way ANOVA has been used to arrive at the conclusions.

#### **RESULTS AND DISCUSSIONS**

Liquidity is a crucial aspect for a bank, which represents its ability to meet its financial obligations. It is of utmost importance to maintain correct level of liquidity, which will otherwise lead to decline in earnings. Banks have to take proper care in hedging liquidity risk, while at the same time ensuring that a good percentage of funds are invested in higher return generating investments so that banks can generate profit and also provide liquidity to the depositors. The ratios used to analyze the liquidity are as follows:

#### 1. LIQUID ASSETS TO TOTAL ASSETS

Liquid assets include cash in hand, balance with the RBI, balance with other banks (both in India and abroad) and money at call and short notice. This ratio is arrived at by dividing the liquid assets by total assets. The proportion of liquid assets to total assets indicates the overall liquidity position of the bank.

**TABLE 1: LIQUID ASSETS TO TOTAL ASSETS** 

Years	ICICI	Indusind	AXIS	HDFC
2000-2001	17.14	14.45	10.64	15.56
2001-2002	12.13	13.78	11.63	13.93
2002-2003	6.08	11.62	18.20	10.42
2003-2004	6.76	14.94	23.45	8.65
2004-2005	7.71	7.39	13.98	8.70
2005-2006	6.78	8.40	7.32	9.41
2006-2007	10.77	12.40	9.44	10.03
2007-2008	9.52	9.36	11.41	11.10
2008-2009	7.90	6.97	10.17	9.56
2009-2010	10.70	7.36	8.42	13.46
2010-2011	8.39	8.82	8.82	10.70
ANOVA Value	F-1.16	P-val	ue- 0.34	df-3

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from the Table -1, the ratio of liquid assets to total assets ranges from 6.08 to 17.14 in case of ICICI, from 6.97 to 14.45 in case of Indusind, from 7.32 to 23.45 in case of AXIS and from 8.65 to 15.56 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is no significant difference in the ratio of liquid assets to total assets in selected banks; therefore, null hypothesis is accepted.

#### 2. GOVERNMENT SECURITIES TO TOTAL ASSETS

Government securities are the most liquid and safe investment. This ratio measures the proportion of risk-free liquid assets invested in government securities as a percentage of the total assets held by the bank and is arrived by dividing investment in government securities by the total assets. This ratio measures the risk involved in the assets held by a bank.

**TABLE 2: GOVERNMENT SECURITIES TO TOTAL ASSETS** 

Years	ICICI	Indusind	AXIS	HDFC
2000-2001	19.41	19.58	21.30	20.33
2001-2002	21.55	18.04	24.24	21.33
2002-2003	23.92	20.40	23.70	20.89
2003-2004	23.88	24.99	20.94	27.25
2004-2005	20.57	21.80	19.97	21.83
2005-2006	20.37	26.01	23.71	26.71
2006-2007	19.63	23.17	22.43	24.71
2007-2008	18.89	23.37	18.42	23.78
2008-2009	16.73	22.79	18.77	28.46
2009-2010	18.87	24.09	18.93	22.95
2010-2011	16.00	21.96	18.21	19.34
ANOVA Value	F- 3.84	P-value-0.02		df-3

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from the Table-2, the ratio of government securities to total assets ranges from 16.00 to 23.92 in case of ICICI, while from 18.04 to 24.99 in case of Indusind, from 18.21 to 24.24 in case of AXIS and from 19.34 to 28.46 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is significant difference in the ratio of government securities to total assets in selected banks, therefore, null hypothesis is rejected.

#### 3. LIQUID ASSETS TO DEMAND DEPOSITS

This ratio measures the ability of a bank to meet the demand from demand deposits in a particular year. It is arrived at by dividing the liquid assets by total demand deposits. The liquid assets include cash in hand, balance with the RBI, balance with other banks (both in India and abroad), and money at call and short

**TABLE 3: LIQUID ASSETS TO DEMAND DEPOSITS** 

Years	ICICI	Indusind	AXIS	HDFC
2000-2001	81.18	190.03	87.51	57.26
2001-2002	249.53	143.40	89.51	50.81
2002-2003	87.80	116.27	94.13	34.50
2003-2004	54.66	188.16	72.83	23.05
2004-2005	53.81	84.69	45.00	20.83
2005-2006	45.95	79.50	23.35	22.80
2006-2007	74.62	100.23	30.50	23.65
2007-2008	60.12	73.80	31.95	27.33
2008-2009	48.39	45.64	30.45	27.98
2009-2010	46.99	41.57	23.51	34.80
2010-2011	34.22	43.42	28.04	27.25
ANOVA Value	F-5.31 P-value-0.00 df-3			

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from the Table-3, the ratio of liquid assets to demand deposits ranges from 34.22 to 249.53 in case of ICICI, from 41.57 to 190.03 in case of Indusind, from 23.35 to 94.13 in case of UTI and from 20.83 to 57.26 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is significant difference in the ratio of liquid assets to demand deposits in selected banks, therefore, null hypothesis is rejected.

#### 4. LIQUID ASSETS TO TOTAL DEPOSITS

This ratio measures the liquidity available to the depositors of a bank. Liquid assets include cash in hand, balance with the RBI, balance with other banks (both in India and abroad), and money at call and short notice. Total deposits include demand deposits, savings deposits, term deposits and deposits of other financial institutions.

TABLE 4: LIQUID ASSETS TO TOTAL DEPOSITS

TABLE 4: LIQUID ASSETS TO TOTAL BET OSTTS					
Years	ICICI	Indusin	ıd	AXIS	HDFC
2000-2001	21.94	18.77		13.33	22.40
2001-2002	39.85	17.77		14.25	19.59
2002-2003	13.47	13.38		21.04	14.16
2003-2004	12.44	20.12		27.03	12.03
2004-2005	12.95	8.80		16.64	12.31
2005-2006	10.32	9.87		9.08	12.40
2006-2007	16.10	14.71		11.77	13.40
2007-2008	15.56	11.44		14.27	14.67
2008-2009	13.72	8.70		12.79	12.27
2009-2010	19.24	9.75		10.76	17.89
2010-2011	15.11	11.71		11.31	14.22
ANOVA Value	F- 1.06		P-val	ue-0.38	df-3

**Source:** Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from the Table-4, the ratio of liquid assets to demand deposits ranges from 10.32 to 39.85 in case of ICICI, from 8.80 to 20.12 in case of Indusind, from 9.08 to 27.03 in case of UTI and from 12.03 to 22.40 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is no significant difference in the ratio of liquid assets to demand deposits in selected banks, therefore, null hypothesis is accepted.

#### **CONCLUSION AND SIGNIFICANCE OF THE STUDY**

To sum up, there is no significant difference in the ratio of liquid assets to total assets and liquid assets to demand deposits in selected banks during the period under study. However, the ratio of government securities to total assets and liquid assets to demand deposits indicates a significant difference in the liquidity of the selected banks during the same period. The study will be useful to the bankers, policy makers and to economy as a whole by improving the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spill over from the financial sector to the economy. It will also be helpful in improving the liquidity risk management practices adopted by private sector banks in India so that they may be the best all over the globe.

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